

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated May 5, 2011 has been received and its contents carefully reviewed. The Examiner is thanked for the courtesy extended during the interview conducted on August 2, 2011. The results of which have been incorporated.

Claims 31, 32, 34-37, 39, 40, and 41 are amended to clarify the claimed subject matter. Claims 1-30 were previously canceled. No new matter has been added. Accordingly, claims 31-42 are currently pending. Reexamination and reconsideration of the pending claims are respectfully requested.

Claims 31-35 and 41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yui, U.S. Patent 5,677,741 in view of D'Souza et al., U.S. Patent 7,046,255 and further in view of Kimura et al., U.S. Patent 6,008,786. Claims 36-40 and 42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yui, U.S. Patent 5,677,741 in view of D'Souza et al., U.S. Patent 7,046,255 and further in view of McKinnon et al., U.S. Patent 6,227,668. The rejections are respectfully traversed.

The cited references viewed singly or in any combination, fail to teach or suggest each and every element as claimed. In particular, the cited references fail to teach, "a lookup table for storing gray scale values of image information including R, G and B data, where a gray scale value of a gray level of the B data that is lower than a gray level at which a color saturation is reduced, is stored as a gray scale value of gray levels that are higher than the gray level at which the color saturation is reduced," as recited in claim 31, and similarly recited in claim 36, as amended.

D'Souza is cited to disclose "an LCD display (col. 4, lines 60-63), wherein a lookup table includes a same initial gray scale value of at least one of the R and G data for all gray levels prior to a grey level at which a color reproducibility is reduced (prior to B [NOTE: THIS WAS CLARIFIED TO BE B'] DURING THE INTERVIEW] level 30 in 508 of fig. 5; both R and G are 0) and the lookup table includes different gray scale values of the R and G data to mix with the B gray scale values from a gray level at which the color reproducibility is reduced to an uppermost gray level (note the compensation amounts of R levels in 508 during reduced B

reproducibility).” Office Action, p 4. The Applicant respectfully disagrees this is what D’Souza teaches.

As discussed during the interview, D’Souza teaches the use of lookup tables to perform color correction to transpose input data from one three-dimensional color space model to a second color space. As seen in D’Souza Fig. 5, R, G, and B of 502 represent coordinates of the input data and R’’, G’’, and B’’ of 508 represent the resulting coordinates after the color correction. “Turning now to FIG. 5, shown are exemplary RGB signal values for the various inputs and output of FIG. 2. Each list of values 502-508 is a range of discrete values from 0 to 255 for each R, G, and B tristimulus value.” D’Souza, col. 8, lines 46-49.

Also discussed, with reference to Fig. 5, the Office Action suggests “prior to B (*sic*) level 30 in 508 of fig. 5; both R and G are 0.” Office Action, p. 4. However, the 15 values for each R’’, G’’, and B’’ listed in 508 are not gray levels as recited in claim 1, but a range of tristimulus values. *Arguendo*, even if the range in 508 are gray levels, both R’’ and G’’ prior to the B’’ level 30 contain values and are not 0 as suggested in the Office Action.

Further, as shown in Fig. 1, D’Souza’s color correction system 100 includes computer system 102 and monitor 124. The computer system 102 includes the graphics controller 114. According to D’Souza, Fig. 2 “is a more detailed representation of the operation of the graphics controller 114.” D’Souza col. 5 lines 1-2. The graphics controller detailed in Fig. 2 of D’Souza includes lookup tables MLUT 204-220 and CLUT 228-232. D’Souza discloses the color correction system can be used for any display device including an LCD. However, the liquid crystal display device (monitor) 124 is separate from the computer system 102. D’Souza teaches the lookup tables in the computer system 102 and an LCD monitor 124 and not lookup up tables comprised in a liquid crystal display device.

The lookup tables of D’Souza cannot be comprised in the liquid crystal display device because D’Souza teaches “the color management module 120 uses monitor specific color characteristics 128 and monitor specific input-output characteristics 130 to perform color correction for the monitor 124. These characteristics are calculated and stored in the custom monitor profile 122, as part of the operating system 118.” D’Souza col. 4, lines 7-12. “[T]he output of the graphics controller 114 produces a real color image 126 that is consistent and

uniform across all non-linear monitors regardless of make, model, or manufacturing inconsistencies causing non-linearities.” D’Souza col. 4, lines 42-49. That is, the color specific characteristics stored in the color management systems will change from monitor to monitor as different monitors may be used with the computer.

In summary, D’Souza teaches the concept of correcting color video data in an accelerated manner through the use of pre-calculated gamut shifting arrays. D’Souza, Abstract. D’Souza teaches a technique to decompensate for gamma and then use monitor specific pre-calculated gamut shifting arrays to compensate for color. D’Souza, col. 2 lines 50-67. The gamut shifting arrays “function to transform the color point data from one color space, such as a standard color space, sRGB, for example, to a color space that is specific to the monitor 124.” D’Souza, col. 5 lines 18-21. Thus, D’Souza teaches color space transformation, but not “a gray level at which a color saturation is reduced.”

Accordingly, D’Souza fails to teach or suggest the elements as purported in the Office Action. Yiu, Kimura, and McKinnon do not cure the deficiencies of D’Souza. Thus, claims 31 and 36 recite allowable subject matter. Claims 32-35 and 37-42 are dependent from claims 31 and 36 and are also allowable for at least the same reasons discussed above. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejections of claims 31-42.

CONCLUSION

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to Deposit Account No. 50-0911.

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Respectfully submitted,

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